D61EX-12
D61PX-12

FLYWHEEL HORSEPOWER
112 kW 150 HP @ 1850 rpm

OPERATING WEIGHT
D61EX-12: 15890 kg 35,080 lb
D61PX-12: 18600 kg 41,010 lb

D61EX/PX-12
D61EX-12, D61PX-12 Crawler Dozer

**Walk-Around**

*The Komatsu S6D114E-1 turbocharged diesel engine* provides an output of 112 kW (150 HP), with excellent productivity, while meeting current emissions standards.

*Gull-wing* engine side doors for easy and safer servicing.

High capacity *Power Angle Tilt dozer* combined the highest power in its class with outstanding productivity.

*Left hand joystick* controls all tractor motion. *Right hand joystick* controls all blade movements.

*Blade tilt lines* completely protected.

*Komatsu Torqflow transmission* offers single lever control of speed (3 forward and 3 reverse) and directional changes.

*Forward mounted pivot shafts* isolate final drives from blade loads.
**Electronic Monitoring System** prevents minor problems from developing into major ones.

**Optional hexagonal, low noise cab** with viscous damping mounts provides unsurpassed operator comfort and visibility.

**Wet, multiple-disc brakes** eliminates brake-band adjustments for maintenance-free operation.

**Hydrostatic Steering System (HSS)** provides smooth, quick, and powerful control in varying ground conditions.

**Bolt-on sprocket** for ease of maintenance.

**Modular power train** for increased serviceability and durability.
All steering, direction, and speed changes are made by a left-hand single joystick control. If the operator wants to move the machine forward and to the left, he simply moves the joystick forward and to the left. If he desires a gear change, he merely twists his wrist. The machine responds to the movement of the lever providing the operator with the feeling of natural control with Komatsu’s joystick.

Low-Noise Design
For smoother riding comfort, power train components and hydraulic control valves are mounted to the frame with rubber pads to soften vibration and shut out noise. Since the D61 employs joysticks, the walk-through operator compartment is uncluttered for smooth entry and exit. A suspension seat with backrest is standard equipment.

Hexagonal Pressurized Cab (Optional)
This is another added comfort feature. Air filters and a higher internal air pressure combine to prevent external dust from entering the cab. In addition, the cab’s hexagonal design provides excellent front, sides, and rear visibility. Viscous damper cab suspension softens shocks for operator comfort and extends component life.

Easy-to-Operate Work Equipment Control Lever
With the Closed-center Load Sensing (CLSS) hydraulic system, blade lever stroke is directly proportional with blade speed, regardless of the load and travel speed. This results in superb, fine controllability.

Benefits of CLSS
- More precise and responsive operation due to the pressure compensation valve.
- Reduced fuel consumption by discharging only the required amount of oil from the pump.
- The work equipment moves smoothly for operations such as side-cutting even when priority is given to steering.
Komatsu S6D114E-1 Turbocharged Diesel Engine

Powerful Engine
A powerful S6D114E-1 turbocharged diesel engine provides a massive output of 112 kW **150 HP**. The engine power is transmitted smoothly to the final drives via a high-efficiency torque converter. And this engine also meets current emissions standards, without sacrificing power or machine productivity.

Gull-Wing Engine Side Covers
With a gas-spring cylinder that opens widely, the engine and the auxiliary components can be checked easily.
Hydrostatic Steering System—Smooth, Powerful Turning

Komatsu’s Hydraulic Steering System (HSS) distributes power to both tracks without power interruption on the inside track. When the machine turns the outside track moves faster and the inside slower, for smooth, powerful turns. The left and right tracks can be counter-rotated for a minimum turning radius providing excellent maneuverability. Shock-free steering reduces machine vibration and minimizes operator fatigue.

- Turning while dozing—the machine turns by driving the left and right tracks under power at different speeds allowing the machine to travel at the same speed as in straight dozing.
- Side-cutting—when side-loading the blade, straight travel can be maintained utilizing HSS.
- On downhill slopes—the machine doesn’t require cross steering. The joystick provides the same steering response on downhill slopes as on flat ground.
- Grading—can be done efficiently without damaging the ground, because the inside track is not locked during turning.
- Counter-rotates for exceptional maneuverability.
Undercarriage

Low Drive and Long Track Undercarriage
Komatsu’s design is extraordinarily tough and offers excellent grading ability and stability. Large-diameter bushings, increased track link heights, and improved oil-seals help to increase undercarriage durability.

Improvements
Numerous improvements to increase undercarriage reliability and durability have been incorporated. Serviceability has also been improved with the addition of remote greasing of equalizer bar center pin.
Frame

Flat Bottom Frame
A flat bottom frame, the monocoque track frames and forward-mounted pivot shafts provide good maneuverability in muddy terrain by preventing mud from building up under the frame.

Modular Designed Power Train Units
The modular design allow easy removal and installation of any individual unit for shorter downtime.

Wet, Multiple-Disc Brakes
Eliminates brake-band adjustments for maintenance-free operation.

Durability
Because fewer components mean greater reliability, we’ve designed a simple hull frame made of a thick, single plate. Track frames have a large-section construction for maximum rigidity. Even the box-section construction of the blade back beam is reinforced, all with durability in mind.

Reservoir

Test Ports

A radiator coolant reservoir makes it easier to check the coolant level and eliminates frequent refilling.

Oil pressure test ports for the power train are centralized on the right hand side of the operator platform for easy access.
**ENGINE**

Model: Komatsu S6D114E-1
Type: 4-stroke cycle, water-cooled, emissionized, direct injection, turbocharged engine
Number of cylinders: 6
Bore: 114 mm 4.49"
Stroke: 135 mm 5.31"
Piston displacement: 8.3 ltr
Gross horsepower*: 123 kW
Gross flywheel horsepower**: 112 kW
Net maximum torque: 80 kg m @ 1850 rpm
Net flywheel horsepower**: Net flywheel horsepower output for standard engine (SAE J1349)
Batteries: 2 24V electrical starter motor. 35 kW/24V alternator, 140 Ah/2 x 12V batteries.

**TORQFLOW TRANSMISSION**

Komatsu’s TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 1-phase torque converter and a planetary gear, multiple-disc clutch transmission which is hydraulically actuated and force-lubricated for optimum heat dissipation. Joystick control of gears (3 forward and 3 reverse) and directional steering changes. Gearshift lock lever and neutral safety switch prevent machine from accidental starts.

- **Travel speed** | **Forward** | **Reverse**
  - 1st | 0–3.5 km/h 0–2.2 mph | 0–4.6 km/h 0–2.9 mph
  - 2nd | 0–6.0 km/h 0–3.7 mph | 0–7.9 km/h 0–4.9 mph
  - 3rd | 0–10.3 km/h 0–6.4 mph | 0–12.8 km/h 0–8.0 mph

**FINAL DRIVE**

Spur gear double-reduction, final drives increase tractive effort. Segmented sprocket are bolt-on for easy in-field replacement.

**COOLANT AND LUBRICANT CAPACITY (REFILLING)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant</td>
<td>44 ltr</td>
</tr>
<tr>
<td>Fuel tank</td>
<td>315 ltr</td>
</tr>
<tr>
<td>Engine oil</td>
<td>19 ltr</td>
</tr>
<tr>
<td>Damper</td>
<td>1.3 ltr</td>
</tr>
<tr>
<td>Transmission, bevel gear, and steering system</td>
<td>44 ltr</td>
</tr>
<tr>
<td>Final drive (each side)</td>
<td>28.5 ltr</td>
</tr>
<tr>
<td><strong>Coolant</strong></td>
<td>11.6 U.S. gal</td>
</tr>
<tr>
<td><strong>Fuel tank</strong></td>
<td>83.2 U.S. gal</td>
</tr>
<tr>
<td><strong>Engine oil</strong></td>
<td>5.0 U.S. gal</td>
</tr>
<tr>
<td><strong>Damper</strong></td>
<td>0.3 U.S. gal</td>
</tr>
<tr>
<td><strong>Transmission, bevel gear, and steering system</strong></td>
<td>11.6 U.S. gal</td>
</tr>
<tr>
<td><strong>Final drive (each side)</strong></td>
<td>7.5 U.S. gal</td>
</tr>
</tbody>
</table>

**OPERATING WEIGHT (APPROXIMATE)**

**Tractor weight:**
- Including rated capacity of lubricant, coolant, ROPS, full fuel tank, operator, and standard equipment.
  - D61EX-12: 13210 kg 29,120 lb
  - D61PX-12: 15630 kg 34,460 lb

**Operating weight:**
- Including power angle tilt dozer, ROPS canopy, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.
  - D61EX-12: 15890 kg 35,080 lb
  - D61PX-12: 18600 kg 41,010 lb
**DIMENSIONS**

<table>
<thead>
<tr>
<th></th>
<th>D61EX-12</th>
<th>D61PX-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1600 mm</td>
<td>1600 mm</td>
</tr>
<tr>
<td>B</td>
<td>1900 mm</td>
<td>2140 mm</td>
</tr>
<tr>
<td>C</td>
<td>3115 mm</td>
<td>3115 mm</td>
</tr>
<tr>
<td>D</td>
<td>2500 mm</td>
<td>3000 mm</td>
</tr>
<tr>
<td>E</td>
<td>600 mm</td>
<td>860 mm</td>
</tr>
<tr>
<td>F</td>
<td>390 mm</td>
<td>390 mm</td>
</tr>
<tr>
<td>G</td>
<td>1830 mm</td>
<td>1830 mm</td>
</tr>
<tr>
<td>H</td>
<td>2595 mm</td>
<td>3170 mm</td>
</tr>
<tr>
<td>I</td>
<td>55 mm</td>
<td>55 mm</td>
</tr>
<tr>
<td>J</td>
<td>3590 mm</td>
<td>4160 mm</td>
</tr>
</tbody>
</table>

**HYDRAULIC SYSTEM**

Closed-center Load Sensing System (CLSS) designed for precise and responsive control and for efficient simultaneous operation.

**Hydraulic control unit:**
All spool control valves externally mounted beside the hydraulic tank. Plunger-type hydraulic pump with capacity (discharge flow) of 174 ltr/min 46.0 U.S. gal/min at rated engine rpm.

Relief valve setting ........................................... 210 kg/cm² 2,990 psi

**Hydraulic cylinders ........................................ Double-acting, piston**

<table>
<thead>
<tr>
<th>Number of cylinders</th>
<th>Bore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade lift</td>
<td>2 110 mm</td>
</tr>
<tr>
<td>Blade tilt</td>
<td>1 130 mm</td>
</tr>
<tr>
<td>Blade angle</td>
<td>2 100 mm</td>
</tr>
</tbody>
</table>

**DOZER EQUIPMENT**

Use of high tensile strength steel in moldboard for strengthened blade construction.

<table>
<thead>
<tr>
<th></th>
<th>Overall Length With Dozer</th>
<th>Blade Capacity</th>
<th>Blade Width x Height</th>
<th>Maximum Lift Above Ground</th>
<th>Maximum Drop Below Ground</th>
<th>Maximum Tilt Adjustment</th>
<th>Additional Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>D61EX-12 Power Angle Tilt Dozer</td>
<td>5025 mm 16’6”</td>
<td>3.4 m³ 4.4 yd³</td>
<td>3275 mm x 1365 mm 10’9” x 4’5”</td>
<td>915 mm 3’0”</td>
<td>515 mm 1’8”</td>
<td>510 mm 1’8”</td>
<td>2340 kg 5,160 lb</td>
</tr>
<tr>
<td>D61EX-12 Semi-U Tilt Dozer</td>
<td>5055 mm 16’7”</td>
<td>4.3 m³ 5.6 yd³</td>
<td>3175 mm x 1300 mm 10’5” x 4’3”</td>
<td>965 mm 3’2”</td>
<td>535 mm 1’9”</td>
<td>600 mm 2’0”</td>
<td>2330 kg 5,140 lb</td>
</tr>
<tr>
<td>D61PX-12 Power Angle Tilt Dozer</td>
<td>5450 mm 17’11”</td>
<td>3.8 m³ 5.0 yd³</td>
<td>3860 mm x 1200 mm 12’8” x 3’11”</td>
<td>1020 mm 3’4”</td>
<td>575 mm 1’11”</td>
<td>600 mm 2’0”</td>
<td>2630 kg 5,800 lb</td>
</tr>
<tr>
<td>D61PX-12 Straight Tilt Dozer</td>
<td>5300 mm 17’5”</td>
<td>3.8 m³ 5.0 yd³</td>
<td>3860 mm x 1070 mm 12’8” x 3’6”</td>
<td>1125 mm 3’8”</td>
<td>515 mm 1’8”</td>
<td>600 mm 2’0”</td>
<td>2230 kg 4,920 lb</td>
</tr>
</tbody>
</table>

**Hydraulic oil capacity (refilling):**
Power angle tilt dozer ........................................ 48.0 ltr 12.7 U.S. gal

**Control valves:**
Spool control valve for power angle tilt dozer.
Positions:
Blade lift ........................................... Raise, hold, lower, and float
Blade tilt ........................................ Right, hold, and left
Blade angle ........................................ Right, hold, and left

Spool control valve for semi-U and straight tilt dozer.
Positions:
Blade lift ........................................ Raise, hold, lower, and float
Blade tilt ........................................ Right, hold, and left
STANDARD EQUIPMENT FOR BASE MACHINE

ENGINE AND ITS RELATED ITEMS:
- Air cleaner, double element type
- Automatic deaeration for fuel line
- Engine, KOMATSU S6D114E-1, 112 kW (150 HP), direct injection turbocharged, emission certified diesel
- Engine precleaner
- Exhaust pipe, curved
- Fan, blower

ELECTRIC SYSTEM:
- Alternator, 35 ampere, 24V
- Backup alarm
- Batteries, large capacity
- Lights (2 front, 1 rear)
- Starting motor 11 kW, 24V

POWER TRAIN AND CONTROLS:
- Torqflow transmission, torque converter
- Hydrostatic Steering System (HSS)
- Mono-lever steering with PPC
- Sprockets, segmented, bolt-on style

UNDERCARRIAGE:
- Idler with recoil spring
- Track frames:
  -- 7 roller, 2 carrier roller (D61EX-12)
  -- 8 roller, 2 carrier roller (D61PX-12)
- Track roller guards, center and end section guiding guards
- Track shoe assembly, single grouser shoes with sealed and lubricated link assembly
  -- D61EX-12: 600 mm 24"
  -- D61PX-12: 860 mm 34"

GUARDS AND COVERS:
- Engine hood and side panels
- Fenders, standard type
- Radiator mask enclosed for sound deflection
- Rear cover, strengthened type
- ROPS mounting brackets
- Underguards, crankcase, and transmission

OPERATOR ENVIRONMENT:
- Instrument monitor panel, electronic
- Seat, suspension type, fully adjustable
- High mounted footrest
- Rearview mirror
- Cup holder
- Lunch box holder
- Seat belt, 3" retractable

HYDRAULICS AND CONTROLS:
- Accumulator for PPC
- Blade cylinder hoses, standard type
- Mono-lever blade control with PPC
- Hydraulics for PAT dozer

SPECIAL ARRANGEMENTS:
- Hot area arrangement: -20°C -4°F through +50°C +122°F
- High altitude arrangement (no fuel adjustment up to 3000 m 9,840 ft
- Hard water area arrangement (corrosion resistant)

VANDALISM PROTECTION:
- Filler cap locks and cover locks

OTHER STANDARD EQUIPMENT:
- Marks and plates, English
- Pullhook

*ROPS canopy must be ordered
*Dozer assembly and rear-mounted equipment are not included

OPTIONAL EQUIPMENT
- Air conditioner with heater, defroster, pressurizer
- AR track assembly (abrasion resistant links and bushings)
- Cab attachments
- Cab, steel
- Cold weather spec
- Drawbar, rigid
- Engine side cover
- Engine protection equipment
- Fan, reversible
- Fuel hoses, non-flammable
- Heater and defroster
- Hinged, strengthened radiator mask
- Hitch
- Hydraulics for ripper
- Machine protection equipment
- Radiator core protective grid
- Radiator mask, hinged and strengthened
- Rear light, additional
- Ripper, multi-shank (fixed)
- Ripper hydraulics control unit
- ROPS canopy
- Seat, deluxe, suspension with turntable
- Sun visor
- Sweeps, front, side, rear, and door screens
- Tank guard group
- Tool kit and ordinary spare parts
- Underguards, reinforced
- Vandalism protection cover for instrument panel
- Water separator
Count on Komatsu and your local distributor for the support you deserve. Our success depends on satisfying your need for productive equipment and supporting that equipment. That’s why we have one of the largest and strongest heavy-equipment distributor organizations in North America. Their personnel are not only trained to help you select the equipment that is best-matched for your business but to support that equipment.

**Finance** Through its finance company, Komatsu can offer you a wide variety of financing alternatives designed to meet your needs. Programs include municipal leases for governmental agencies, conditional sales contracts, and leases with $1 purchase options for customers interested in owning their equipment. Ask your distributor about Komatsu leasing. We offer finance and operating leases and the unique Advantage Lease which offers you predetermined purchase, return, and renewal options.

**Parts** Three computer-linked parts distribution centers provide fast access to anywhere in the U.S. and Canada. Most parts are available overnight. Plus, Komatsu distributors keep a large assortment of commonly used parts in stock for immediate access.

**Remanufactured parts** Save money and still have the same warranty as new parts at a fraction of the cost with like-new remanufactured parts.

**Maintenance** Take advantage of the experience we have gained and ask your distributor about our factory-supported programs including: regular scheduled maintenance, oil and wear analysis, diagnostic inspections, undercarriage inspections, training, special service tools, parts programs, and even a special software program to help your distributor keep track of and manage service-related data.